

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
DIVISION OF STRUCTURE DESIGN SERVICES & EARTHQUAKE ENGINEERING
OFFICE OF STRUCTURE OFFICE ENGINEER
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COMPARATIVE BRIDGE COSTS

JANUARY 2002

The following tabular data gives some **general guidelines** for structure type selection and its relative cost. These costs should be used just for **preliminary estimates** until more detailed information is developed.

These costs reflect the **'bridge costs'** only and **do not** include items such as: bridge removal, approach slabs, slope paving, soundwalls or retaining walls.

The following factors **must** be taken into account when determining a price within the cost range:

Factors for Lower End of Price Range




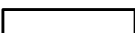






Short Spans, Low Structure Height, No Environmental Constraints, Large Projects, No Aesthetic Issues, Dry Conditions, No Bridge Skew
Urban Location
Seat Abutment
Spread Footing
No Stage Construction

Factors for Higher End of Price Range

Long Spans, High Structure Height, Environmental Constraints, Small Project, Aesthetic Issues, Wet Conditions (cofferdams required), Skewed Bridges
Remote Location
Cantilever Abutment
Pile Footing
2 Stage Construction

Factors That Will Increase the Price Over the High End of the Price Range

Structures With More Than 2 Construction Stages
Unique Substructure Construction
Widenings Less Than 5M

STRUCTURAL SECTION	(STR. DEPTH/MAX SPAN)		COMMON SPAN RANGE (meters)	COST RANGE (\$ / M2)	REMARKS
	SIMPLE	CONTINUOUS			
RC SLAB 	0.06	0.045	5-13	900 - 1,300	THESE ARE THE MOST COMMON TYPES AND ACCOUNT FOR ABOUT 80% OF BRIDGES ON CALIFORNIA STATE HIGHWAYS.
RC T-BEAM 	0.07	0.065	12-18	1,000 - 1,950	
RC BOX 	0.06	0.055	15-37	1,125 - 1,800	
CIP/PS SLAB 	0.03	0.03	12-20	1,050 - 1,375	
CIP/PS BOX 	0.045	0.04	30-76	875 - 1,625	
PC/PS SLAB 	0.03 (+75mm AC)	0.03 (+75mm AC)	6-15	1,300 - 1,950	NO FALSEWORK REQUIRED
PC/PS 	0.06 (+75mm AC)	0.055 (+75mm AC)	9-37	1,100 - 1,800	
BULB T GIRDER	0.05	0.045	27-44	1,125 - 2,100	
PC/PS I 	0.055	0.05	15-37	1,250 - 1,900	
PC/PS BOX 	0.06	0.045	37-61	1,500 - 2,700	
STRUCT STEEL I-GIRDER 	0.045	0.04	18-91	1,625 - 2,300	NO FALSEWORK REQUIRED

NOTE: Removal of a box girder structure costs from \$160 - \$215 per square meter.

COSTS INCLUDE 10% MOBILIZATION AND 25% CONTINGENCY